

In the claims:

Please amend the claims as follows:

1. (Currently Amended) A semiconductor passive Q-switch suitable for use in a laser system to produce laser pulses having variable ~~output characteristics including a lasing wavelength~~ pulse duration and pulse repetition frequencies, wherein said semiconductor passive Q-switch has a coating with variable transmittance for different locations of said coating ~~at the lasing wavelength~~ for tuning said ~~output characteristics of said laser pulses~~ pulse durations and pulse repetition frequencies.

2. (Currently Amended) A semiconductor passive Q-switch according to claim 1 wherein the laser pulses have variable ~~said output characteristics include pulse duration, pulse repetition rate,~~ peak power and averaged output power ~~of said laser pulses~~.

3. (Previously Presented) A semiconductor passive Q-switch according to claim 1 comprising a wafer having two surfaces that are optically polished, one or both surfaces being optically coated to form a gradient variation of transmission at a wavelength substantially in the IR region.

4. (Previously Presented) A semiconductor passive Q-switch according to claim 3 wherein said surfaces are optically coated to form a gradient variation of transmission at a wavelength in the IR region.

5. (Previously Cancelled)

6. (Previously Presented) A semiconductor passive Q-switch according to claim 1 wherein tuning of said output characteristics is effected by translating the Q-switch in a direction transverse to the optical axis of the laser system.

7. (Previously Presented) A semiconductor passive Q-switch according to claim 1 wherein tuning of said output characteristics is effected by moving the Q-switch in a curvilinear path.

8. (Previously Presented) A semiconductor passive Q-switch according to claim 7 wherein said curvilinear path included circular rotation.

9. (Previously Presented) A semiconductor passive Q-switch according to claim 1 wherein said Q-switch functions simultaneously as an output coupler of said laser system.

10. (Previously Presented) A semiconductor passive Q-switch according to claim 1 including undoped GaAs.

11. (Previously Presented) A semiconductor passive Q-switch according to claim 1 including doped or undoped semiconductor material having properties of saturable absorption in the IR spectrum.

12. (Previously Presented) A semiconductor passive Q-switch according to claim 11 wherein said semiconductor material includes AlGaAs or InP.

13. (Previously Presented) A semiconductor passive Q-switch according to claim 1 having a multiple-quantum-well configuration.

14. (Original) A laser system incorporating a semiconductor passive Q-switch according to claim 1, said laser system including a solid-state laser that is diode-end-pumped, diode-side pumped, hybrid-pumped, lamp-pumped or pumped with other lasers.

15. (Original) A laser system incorporating a semiconductor passive Q-switch according to claim 1 and adapted to produce a laser output at a wavelength centered at an IR wavelength.

16. (Original) A laser system according to claim 15 wherein said IR wavelength is 1.06 μ m.

17. (Currently Amended) A semiconductor passive Q-switch suitable for use in a laser system to produce laser pulses having variable pulse durations and pulse repetition frequencies, ~~output characteristics including a lasing wavelength~~ wherein said semiconductor passive Q-switch comprises a body of material having variable thickness at different locations of said body for tuning said pulse durations and pulse repetition frequencies ~~output characteristics of said laser pulses~~.